HTML Notes: Formatting, Comments, Links, Images, Favicons

1. Text Formatting in HTML

HTML provides various tags to style and structure text content.

Common Formatting Tags:

Tag	Description	Example
`<b>`	Bold text (no semantic importance)	`<b>Bold Text</b>`
`<strong>`	Bold text (semantic importance)	`<strong>Important</strong>`
`<i>`	Italic text (no semantic importance)	`<i>Italic Text</i>`
`<em>`	Italic text (semantic emphasis)	`<em>Emphasized</em>`
`<u>`	Underlined text	`<u>Underlined</u>`
`<mark>`	Highlighted text	`<mark>Highlight</mark>`
`<small>`	Smaller text	`<small>Small Text</small>`
`<del>`	Deleted text (strikethrough)	`<del>Deleted</del>`
`<ins>`	Inserted text (underline)	`<ins>Inserted</ins>`
`<sub>`	Subscript text	`H<sub>2</sub>O`
`<sup>`	Superscript text	`E=mc<sup>2</sup>`
`<code>`	Inline code	`<code>console.log()</code>`
`<pre>`	Preformatted text (preserves spaces)	`<pre>Hello World</pre>`

Example:

```
<p>This is <b>bold</b>, <i>italic</i>, and <mark>highlighted</mark> text.</p>
<p>Chemical formula: H<sub>2</sub>O</p>
<p>Einstein's equation: E=mc<sup>2</sup></p>
```

2. HTML Comments

Comments are used to add notes in HTML code (not visible in the browser).

Syntax:

```
<!-- This is a comment -->
<p>This is visible text.</p>
<!--
  Multi-line
  comment
-->
```

Use Cases:

- Explaining code
- Temporarily disabling code
- Leaving notes for developers

Example:

```
<!-- Header Section Starts -->
<header>
    <h1>Website Title</h1>
</header>
<!-- Header Section Ends -->
```

3. Links in HTML

Links are created using the `<a>` (anchor) tag.

Attributes:

Attribute	Description
href	URL or file path
target	Where to open (_blank for new tab)
title	Tooltip on hover
rel	Link relationship (e.g., nofollow)

Examples:

```html
<!-- External Link -->
<a href="https://google.com" target="_blank">Visit Google</a>

<!-- Internal Link (Same Website) -->
<a href="about.html">About Us</a>

<!-- Email Link -->
<a href="mailto:contact@example.com">Email Us</a>

<!-- Phone Link -->
<a href="tel:+1234567890">Call Us</a>

<!-- Bookmark Link (Jump to a section) -->
<a href="#section2">Go to Section 2</a>
<h2 id="section2">Section 2</h2>
```

4. Images in HTML

Images are embedded using the `<img>` tag.

Attributes:

Attribute	Description
src	Image path (URL/local)
alt	Alternative text (accessibility)
width	Width in pixels or %
height	Height in pixels or %
title	Tooltip on hover

Example:

```html
<img src="logo.png" alt="Company Logo" width="200" title="Logo">
```

Image Formats:

- **JPEG** – Best for photos
- **PNG** – Best for transparency
- **SVG** – Scalable vector graphics
- **WebP** – Modern, optimized format

5. Favicons in HTML

A favicon is a small icon displayed in the browser tab.

How to Add a Favicon:

1. Create a **16x16 or 32x32** `.ico` or `.png` file.
2. Place it in the website's root folder.
3. Add this in the `<head>` section:

```
<link rel="icon" href="favicon.ico" type="image/x-icon">
<!-- For modern browsers (PNG/SVG) -->
<link rel="icon" href="favicon.png" type="image/png">
```

Alternative Methods:

- **Emoji Favicon** (for quick testing):

  ```
  <link rel="icon" href="data:image/svg+xml,<svg xmlns='http://www.w3.org/2000/svg' 
  ```

- **Apple Touch Icon** (for iOS devices):

  ```
  <link rel="apple-touch-icon" href="apple-touch-icon.png">
  ```

Practical Questions

1. Formatting & Comments

- Create an HTML page with:
  - A heading (`<h1>`)
  - A paragraph with **bold**, *italic*, and ~~strikethrough~~ text.
  - Add a comment explaining the purpose of the page.

2. Links

- Build a navigation menu with 3 links:
  - Home (links to `index.html`)
  - About (links to `about.html`)
  - Contact (links to `#contact` section)

3. Images

- Insert an image (`photo.jpg`) with:
  - Width = `300px`
  - Alt text = "Sample Photo"
  - A tooltip saying "Click to enlarge"

4. Favicon

- Add a favicon (`favicon.ico`) to an HTML page.
- Test it in the browser tab.

5. Combined Exercise

- Create a **Personal Portfolio** page with:
  - A header with your name (`<h1>`)
  - A navigation bar (Home, Projects, Contact)
  - A profile picture (`<img>`)
  - A footer with a copyright notice
  - A favicon